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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/679,812

10/06/2003

Timothy F. Moore III

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24374

7590

01/28/2005

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EXAMINER

BAYARD, EMMANUEL

ART UNIT

PAPER NUMBER

2631

DATE MAILED: 01/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/679,812

Applicant(s)

MOORE, TIMOTHY F.

Examiner

Emmanuel Bayard

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 October 2003.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 50-56 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 50-56 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

2. Claims 50-56 are rejected under 35 U.S.C. 102(e) as being anticipated by Dent U.S. patent No 5,351,016.

As per claim 50, Dent teaches a transmitter for transmitting a spread spectrum code division multiple access (CDMA) signal at a system chip rate over a carrier frequency, comprising: a single-sideband modulator for shifting the signal spectrum to the edge of the spectrum bandwidth, including (see figs.2-3): a first phase shift network for converting the signal into I and Q components (see figs.2-3 elements 104 and 110 and col.3, lines 35-55 and col.12, lines 33-36); a

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second phase shift network for producing a sinusoidal carrier signal and a cosinusoidal carrier signal (see figs.2-3 elements 103 and 0degree-90degree) and col.3, lines 43-55 and col.12, lines 43-44); a pair of balanced modulators (see figs2-3 elements 101, 102 and col.3,lines 38-48) for receiving sinusoidal and cosinusoidal carrier signals from the second phase shifter; and an adder (see figs.2-3 element 105 and col.3, lines 46-50) for combining the balanced modulator outputs; and a reference signal input (see figs2-3 elements w and f1) with constant frequency for setting the shifting by said modulator.

As per claim 51, Dent does teach a spread spectrum encoder for encoding the shifted signal into a spread signal (see fig.8); a low-pass filter (see col.12, lines 50-51) having a cutoff frequency corresponding to the chip rate; a mixer for up-converting (see fig.3 element 115 and col.13, line 16) said spread spectrum data signal at the carrier frequency; and a band-pass filter with a bandwidth corresponding to twice the chip rate for filtering the signal prior to transmission is inherently taught by Dent.

As per claims 52 and 55, Dent teaches a transmitter for transmitting a spread spectrum code division multiple access (CDMA) signal at a system chip rate over a carrier frequency, comprising: a single-sideband modulator for shifting the signal spectrum to the edge of the spectrum bandwidth, including (see figs.2-3): a first phase shift network for converting the signal into I and Q components (see figs.2-3 elements 104 and 110 and col.3, lines 35-55 and col.12, lines 33-36); a second phase shift network for producing a sinusoidal carrier signal and a cosinusoidal carrier signal (see figs.2-3 elements 103 and 0degree-90degree)

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and col.3, lines 43-55 and col.12, lines 43-44); a pair of balanced modulators (see figs2-3 elements 101, 102 and col.3, lines 38-48) for receiving sinusoidal and cosinusoidal carrier signals from the second phase shifter; and an adder (see figs.2-3 element 105 and col.3, lines 46-50) for combining the balanced modulator outputs; and a reference signal input (see figs2-3 elements w and f1) with constant frequency for setting the shifting by said modulator; a spread spectrum encoder for encoding the shifted signal into a spread signal (see fig.8); a low-pass filter (see col.12, lines 50-51) having a cutoff frequency corresponding to the reference input signal.

As per claims 53 and 56, Dent does teach a mixer for up-converting (see fig.3 element 115 and col.13, line 16) said spread spectrum data signal at the carrier frequency; and a band-pass filter with a bandwidth corresponding to twice the chip rate for filtering the signal prior to transmission is inherently taught by Dent.

As per claim 54, Dent inherently teaches wherein the band-pass filter is a helical resonator.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Kato et al U.S. patent No 4,567,602 teaches a correlated signal processor.

Dapper U.S. Patent No 4,748,641 teaches a suppressed carrier modulation.

Nystrom et al U.S. patent No 5,412,351 teaches a Quadrature local oscillator.

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Gordy et al U.S. patent No 4,017,798 teaches a spread spectrum demodulator (**).

Piesinger U.S. patent No 4,726,039 teaches constant amplitude PSK modulator.

Edwards et al U.S. Patent no 4,717,894 teaches a calibration vector.

Hulick U.S. patent No 5,450,044 teaches a quadrature amplitude modulator.

Tang U.S. patent No 5,661,424 teaches a frequency-hopping synthesizer.

Cooper U.S. Patent No 4,868,428 teaches an apparatus for shifting the frequency of complex signals.

Teranishi et al U.S. patent No 4,888,788 teaches transmitting and receiving systems.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Emmanuel Bayard whose telephone number is 571 272 3016. The examiner can normally be reached on Monday-Friday (7:Am-4:30PM) Alternate Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mohammed Ghayour can be reached on 571 272 3021. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Emmanuel Bayard
Primary Examiner
Art Unit 2631

1/25/05


EMMANUEL BAYARD
PRIMARY EXAMINER